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April 9, 2013

MEMORANDUM

TO: CSU Presidents

FROM: Timothy P. White
Chancellor

SUBJECT: Reducing Bottlenecks and Improving Student Success

Overview

The Governor's budget proposal includes $10 million to reduce bottleneck courses for students through the use of innovative online technologies. Additionally, I am allocating $7.2 million to promote student success programs that further the California State University Graduation Initiative priorities to eligible campuses. Allocation of these funds is contingent on passage of the final budget later this spring, and yet it is prudent to take concrete steps forward now, so the newly funded efforts can be put into play this upcoming academic year and have impact. Our commitment to maximizing access, reducing time to degree, improving graduation rates and most importantly, shrinking the achievement gap will be reflected in the funding that we allocate to achieve these important goals.

To affect the largest impact in the 2013-14 academic year, awards will be focused on current, scalable, proven practices that are deemed to have high potential for immediate improvement in the student success metrics outlined in *Attachment A*. Each eligible campus will have the opportunity to apply for funding through a Request for Proposals (RFP) process that will begin later this month (see eligibility note below in the section entitled RFP Structure).

Selecting Proven Course Redesign Strategies for Results in 2013-14: Scaling Up

Before the RFP process is fully structured, and to ensure faculty have time to commit to begin some projects this summer and early fall I would like to hear from you regarding any existing innovations in course delivery that could be scaled to increase access and/or improve student learning outcomes in academic year 2013-14. We are most sensitive about the timing of adding course sections in the 2013-14 academic year because of the need to involve faculty leadership and collaboration over the summer. Thus, I am asking you first to think about redesigned courses that have a proven record of success in any of the following three areas:

1. Redesigned courses that have increased student success in traditionally high-demand and low-success areas across the system. (See *Attachment B* for the list of high-demand and low-success courses).
2. High-demand, high-success (high rate of C or better) courses delivered through fully-online technologies to be made available across the system; and/or hybrid learning technologies that can significantly increase access.
3. Proven experience with virtual labs that can be scaled to more campuses where demand for laboratory space is greater than physical capacity.

As part of the Pre-RFP process please visit http://groups.csuprojects.org/rfp to submit your proposals Thursday, April 18, the day following our discussions on this and other matters at the Council of Presidents' meeting in Long Beach. Submission should include historical data demonstrating the effectiveness of these courses.

Timeline:

April 12, 2013	Pre-RFP Q&A Conference Call
April 18 2013	Responses due to Pre-RFP via http://groups.csuprojects.org/rfp
April 26, 2013	Pre-RFP courses identified and lead campuses named
April 29, 2013	RFP available at https://csyou.calstate.edu/initiativesRFP
May 15, 2013	Virtual Q&A to address RFP Questions
May 31, 2013	Proposals due
June 2013	RFP review committees meet and make recommendations
July 2013	Year 1 awards announced and allocated
Summer 2013	CSU institutes for course redesign
2013-14 AY	Campuses work independently and in teams on funded projects
Winter 2014	CSU institutes bring project participants together where appropriate
May 2014	1st year impact/outcome reports due to the CSUCO

RFP Structure

The Pre-RFP will solicit successfully redesigned courses that can be scaled to accommodate more students and/or be expanded to additional campuses. Lead campuses will be established, and the courses will be listed in the RFP. Allocation of funds will not occur until the RFP is complete.

The RFP will detail the requirements for the funding available from the $7.2 million for academic and student success programs and the $10 million to fund promising course redesign and e-adviser projects as outlined below. Please note that all campuses are eligible to compete in the $10 million fund, but eligibility is restricted in the competition for the $7.2 million fund to those campuses that did not increase funded enrollment beyond 1.2%.

All proposals must:

- Set measurable targets for closing the achievement gap, reducing time to degree, and/or improving student retention (see *Attachment A* for suggested metrics)
- Provide an implementation plan for scaling the program
- Provide a sustainability plan detailing strategies for institutionalizing the program
- Involve collaboration and cross-implementation across CSU campuses to the extent possible
- Provide an evaluation using the guidelines in *Attachment A*

The RFP will have four parts:

1. Proven Course Redesign (Funds available from the remaining $10 million allocation)

    - Awards from the $10 million to reduce bottlenecks will be prioritized for the courses identified by the Pre-RFP process. Lead campuses will be named, and other campuses will nominate teams to participate in summer 2013 institutes to add seats and sections in the 2013-14 Academic Year.

The remaining funds will be awarded for proposals concentrated in three broad areas:

2. Promising Course Redesign (Funds available from the remaining $10 million allocation)

    - Leverage technologies to improve student performance in high-demand and low-success courses across the CSU system. Chancellor's Office staff have identified the top 22 high-demand courses with the largest percentage of repeatable grades (D, F, and W etc.). These courses are identified in *Attachment B*. Course redesign strategies will consider online, hybrid, "flipped classroom," and MOOC delivery models.
    - Reduce facility bottlenecks due to limited campus laboratory space in the STEM fields by leveraging online virtual labs that replace some or all lab sections for non-STEM majors.
    - Increase student access to high-demand and high-success courses delivered through fully online technologies to be made available across the system and/or hybrid learning technologies to significant increase access on campus.
    - Examples include but are not limited to:
        - Upper Division GE Courses
        - Lifelong Learning GE Courses
        - Sociology, Anthropology and Astronomy Courses
        - See *Attachment B* for a list of high-demand, low-success courses

3. Academic and Student Success Programs (Funds available from the $7.2 million allocation)

    - Examples include but are not limited to:
        - Block scheduling for all incoming freshmen
        - Service-learning requirement for all incoming freshmen
        - First and/or second year learning communities for all students
        - Summer Bridge
        - Peer Mentoring

4. E-Advising (Funds available from the $10 million allocation)

    - Leverage existing software packages to allow students and advisers to take advantage of better tools to determine clear pathways to graduation, track progress to degree, and eliminate registration bottlenecks. Potential e-advising software packages include but are not limited to:
        - Hobson's suite of products
        - College Source's suite of products
        - College Scheduler
        - Education Advisory Board

Additional information about the four sections of this RFP, including forms and detailed submission instructions will be posted at https://csyou.calstate.edu/initiativesRFP . Questions about the RFP can be submitted through the website or can be addressed to Kara Perkins (kperkins@calstate.edu; (562) 951-4748) and Ephraim Smith (esmith@calstate.edu; (562) 951-4710).

TPW/kp

Attachments

c: CSU Provosts and Vice Presidents for Academic Affairs
CSU Vice Presidents for Administration and Finance
CSU Vice Presidents for Student Affairs
Dr. Benjamin F. Quillian, Executive Vice Chancellor and Chief Financial Officer
Dr. Ephraim P. Smith, Executive Vice Chancellor and Chief Academic Officer
Dr. Diana Wright Guerin, Chair, Academic Senate California State University

Attachment A

Student Success Outcomes, Accountability Metrics, Assessments and Evaluations

Chancellor White, CSU Long Beach President Alexander, and Chief Academic Office Smith have outlined several Student Success Outcomes that CSU campuses are seeking to address through the Access to Success Initiative; the CSU Graduation Initiative; and grants, contracts, and initiatives with the National Science Foundation, other agencies, foundations, business, and industry – as well as through the encouragement of CSU Trustees, California officials, and the federal government. Most importantly, CSU campus communities themselves are committed to these student success outcomes.

- Redesign course, academic policy and program, and e-advising initiatives must address, at least, **three of the six Student Success Outcome areas.**
- **Proposals involving the first area -- Closing the Gaps in Persistence and Graduation – will be given priority consideration.**
- Almost every accountability metric already is being tracked by the CSU system and its institutions.
- Initiatives to scale, improve, and institutionalize ***proven*** practices are most likely to the move the needles on the accountability metrics of the Student Success Outcome areas and, thus, are the primary foci of first year funding, although promising, smaller-scale initiatives are encouraged.
- Available campus evidence of effectiveness is expected on each initiative. Proven practices are supported by journal articles, evaluations, and research studies of student achievement and progress in the proposed initiative in comparison with their counterparts and/or in a longitudinal framework.
- It is assumed that funded initiatives will involve formative assessments and summative evaluation (see below)

STUDENT SUCCESS OUTCOMES AND ACCOUNTABILITY METRICS

The CSU Chancellor's Office tracks institutional metrics on all Student Success Outcome Areas. It is the campus/institutional responsibility to track the metrics for students participating in the funded initiative.

A. Closing the Gaps in Persistence and Graduation – National Focus and Foundation Focus, Access to Success, the CSU Graduation Initiative (Metrics on both metrics must be tracked)
   1. Narrowing the persistence rates for low-income and/or URM students versus their counterparts (Access to Success metric, first-time freshman and transfers)
   2. Narrowing the six-year graduation rates for low-income and/or URM students versus their counterparts (Access to Success metric, first-time freshmen and transfers)

B. Increasing the Number of Degree Awards – National Focus and Foundation Focus (Two or more metrics must be selected for tracking)
   1. Total number of degrees awarded (IPEDS/Access to Success/CSU metric)
   2. Total number of degrees granted to low income (Pell recipients) and underrepresented minorities (URM) students (Access to Success/CSU metric)
   3. Total number of degrees granted to community college transfer students (CSU)
   4. Total number of degrees granted in STEM fields (federal government definition, IPEDS/CSU metric)
   5. Total number of degrees granted in high demand fields (CSU Economic Impact Study definition – IPEDS/CSU metric)

C. Improving CSU Graduation Rates – Access to Success and the CSU Graduation Initiative (Two or more metrics must be selected for tracking)
   1. Increasing persistence rates (IPEDS metric)
   2. Increasing six-year graduation rates to the upper-10 percent of comparison institutions (the CSU Graduation Initiative uses IPEDS six-year graduation rates and the Education Trust's identification of like-kinds of institutions; the current agreed-upon goal is for each CSU

institution to reach the upper quartile statistic of comparison institutions or, at least, 6 percentage points if already in the top quartile– IPEDS metric)
3. Improving the six-year graduation rates of low income and underrepresented minorities (IPEDS metric)
4. Improving the graduation rate of community college transfer students (CSRDE metric)
5. Improving six-year graduation rates in STEM fields (IPEDS metric and NSF metric)
6. Improving six-year graduation rates in high demand fields (IPEDS metric)
7. Rate of improvement in 4, 6, 8 and 10-year graduation/completion rates (extension of IPEDS metrics)

D. Reducing Time to Degree – National Focus, Foundation Focus, CSU Focus (The first three metrics must be tracked along with the selection of the first-time freshman metric and/or upper-division transfer student metric)
   1. Decreasing students' elapsed years to degree (federal metric used to define the 2-, 3-, 4-, 5-, 6- …year graduation rate) by first-time freshman/upper-division transfer student
   2. Decreasing enrolled-years to degree (2 semesters/3 quarters of enrollment = 1 enrolled year) by first-time freshman/upper-division transfer student
   3. Decreasing students' FTE-years to degree (120 semester/180 quarter units = 1 FTE-year) by first-time freshman/upper-division transfer student
   4. Increasing the proportion of first-time freshmen graduating in four years
   5. Increasing the proportion of upper-division transfer students graduating in two years

E. Improving Value and Efficiency: National Focus, California Focus, CSU Focus (One or more metrics must be tracked; an appropriate alternative metric may be proposed)
   1. Reducing the percentage of undergraduate students graduating without student loan debt (Contributions to the Public Good)
   2. Increasing the state-supported instructional credits earned by students/ full-time equivalent faculty (Academic Planning Data Base data and metric)
   3. Increasing the credits earned by students in online courses (in process)
   4. *Maintaining or improving average amount of undergraduate students graduating with student loan debt in relation to state and national averages (Contributions to the Public Good)
   5. *Maintaining or improving the percentage of undergraduate students graduating with debt in relation to state and national averages (Contributions to the Public Good)
   6. *Maintaining or improving total cost to undergraduate degree produced compared to national public university averages (Contributions to the Public Good)

F. Community Service: National Focus, California Focus, CSU Focus (Two or more metrics must be tracked)
   1. Increasing total hours of students participating in community service
   2. Increasing the number of students participating in community service
   3. Increasing the percentage of students participating in community service
   4. Increasing total hours of students participating in community service learning
   5. Increasing the number of students participating in community service learning
   6. Increasing the percentage of students participating in community service learning

*Note: National data in the three asterisked categories (E.4, E.5, E.6) should only improve for CSU institutions when compared to national averages in the coming years. This is because national trends in tuition and fee increases will not subside except in a very few states that have implemented tuition freezes like the CSU for the first two categories. For the last category, the data should evidence even greater efficiencies and productivity compared to other public universities because of recent graduation rate improvements which should continue and the increased number of undergraduate degrees granted that

have occurred and will continue to increase. Currently, the CSU looks very strong when compared nationally in these categories and there is a two year data lag due to IPEDS in these areas.

SYSTEMWIDE DATA COLLECTION AND TRACKING

State-Supported Enrollment Reporting System (ERS), Self-Supported Enrollment Reporting System – Student (sERSS), and Academic Planning Data Base (APDB) term files will continue to be submitted by all CSU institutions. All CSU institutions will submit early, census-date, and end-of-term class lists (with grades on the end of term file) in state-supported instruction and probably in self-supported instruction – given new federal mandates, growing state involvement, and Trustee interest. High-priority common course attributes also will be collected from all campuses, as they will permit tracking of similar courses (curricular, learning mode, and mode of instruction) across campuses.

Funded campuses will submit common targeted course and course section attributes to permit the system to identify funded courses/course sections. For example, it is anticipated that funding may involve the following: online courses and course sections, redesigned courses, service learning course sections, block-scheduled sections, peer-tutors assigned by section, and intensive summer instruction/intensive summer bootcamp/Summer Bridge. For funding that does not address courses or course sections, high-priority common student participation attributes will be collected. Examples include use of e-advising tools, residential learning communities, summer career-related jobs, on-campus employment.

FORMATIVE AND SUMMATIVE EVALUATION OF FUNDED PROJECTS

Formative evaluations, addressing nuances about the redesign that contribute to the initiative's success and its continuing improvement, are important parts of an assessment and evaluation, in addition to direct summative evidence. As the metrics for the selected Student Success Outcomes may not be available immediately, precursor, or leading, indicators should be presented in appropriate evaluation timeframes. Thus, campuses minimally will be expected to assess grades; timing and completion of GE, prerequisite, and major milestones; accumulation of credits in courses that matter by term; term- and annual-retention, as appropriate, of students in the initiative versus their counterparts; if scaled, longitudinal trends are expected.

SOME ILLUSTRATIVE INITIATIVE-SPECIFIC INDICATORS

Facilities – Campuses will be expected to track and report on the number of "freed" laboratory stations resulting from the redesign; the system should be able to replicate figures provided by campus-supplied data.

High Demand and-Low Success – Campuses will be expected to track and show a reduction in the percentage and number of repeatable grades in the funded sections; the system should be able to replicate figures provided by campus-supplied data.

High Demand and High Success – Campuses will be expected to track and show the reduction in lecture or laboratory stations resulting from the non-face-to-face offering and the increase in credits earned per full-time-equivalent faculty (FTEF) through course offerings– especially if the additional sections are open to sister CSU campus students.

Academic Policy and Program – Campuses should consider any additional assessments or metrics specific to the proposed academic policy or program that distinguishes it. For example, the target of peer mentoring programs are the students in need and their success in a course, term-retention, annual-retention, overall GPA, and the like; however, mentoring also may significantly affect the mentor.

E-Advising – Campuses will be expected to track the number of students and advisers using the e-advising tool, the degree of use, outcomes by term (especially in relation to a control group if e-advising is not cohort- or campus-wide). E-Advising tools are likely to have varying strengths and areas in which improvements might be made.

Attachment B

High Enrollment - Low Success Courses in the CSU

Data Analysis of Fall 2012 State-Supported Instruction: The Distribution of As, Bs, Cs, and Repeatable Grades and the Identification of Target Bottleneck Courses

Enrollments and grades given to students in fall 2012 state-supported courses were analyzed to provide empirical data about courses that address CSU (and the Governor's) concerns about academic bottlenecks that slow students' progress to degree.

The data analyses provide some insights about:

1. **Facilities Bottlenecks –** These are courses where demand outpaces the campus' physical capacity to offer laboratory sections in safe, well-equipped facilities; and
2. **Pedagogical Bottlenecks** – These are courses where volume is high, large numbers of students are not receiving passing grades (As, Bs, and Cs) and as a result are likely to repeat the course.

Findings:

In fall 2012, there were almost 1.8 million state-supported course enrollments.

- 87% (over 1.5 million) of the course enrollments resulted in As, Bs, and Cs – that is, passing, non-repeatable grades.[1]
- Stated in the negative, about 13% (over 225K) of the course enrollments resulted in repeatable grades. The single term FTES associated with repeatable grades is almost 50,000.

The information about courses in which more than a fifth of the grades were repeatable was then sorted by the number of students who did not receive As, Bs, and Cs. The table below provides the list of 22 high demand-low success courses by discipline, rank ordered by the potential impact on improving access through course redesign.

A. **Science Courses with Pedagogical Bottlenecks**
   1. General Education Biology (with labs)
   2. General Education Chemistry (with labs)
   3. General Chemistry (usually for STEM)
   4. General Biology (usually for STEM)
   5. Organic Chemistry (STEM)
   6. Cellular Biology (STEM)

B. **Math Courses with Pedagogical Bottlenecks**
   1. Developmental Math – scale current best practices
   2. College Algebra
   3. Statistics – scale current best practices
   4. Business Calculus/Math – scale current best practices

[1] Report in Progress (RP) and Report Delayed (RD), as well as Audits, were counted with the As, Bs, and Cs. Authorized withdrawals after census and unauthorized withdrawals were counted as repeatable. Incomplete (Is) also were counted as repeatable for the first pass, as registrars note that most incompletes are not completed and they convert to failures.

5. Pre-Calculus/Trigonometry (STEM Bottleneck)
6. Calculus (STEM Bottleneck)

C. **Business and Social Science Courses with Pedagogical Bottlenecks**

1. Microeconomics
2. Macroeconomics
3. Financial Accounting
4. Psychology
5. Marketing
6. Operations Management
7. Managerial Accounting
8. Business Finance
9. American Government, Politics
10. US History (all periods)

General Education Biology labs and General Education Chemistry labs are significant facilities bottlenecks as well as pedagogical bottlenecks.